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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,323	02/05/2001	Takashi Hasegawa	82274	3649

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EXAMINER

GRAHAM, GARY K

ART UNIT PAPER NUMBER

1744

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/762,323

Applicant(s)

HASEGAWA ET AL.

Examiner

Gary K Graham

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-9,11-17 and 19-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5,7-9,11-17,19 and 29 is/are allowed.
- 6) ☒ Claim(s) 20-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 20-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There does not appear to be any support for the O-ring being elastically deformable to allow deformation of the locking piece. The specification only appears to discuss the O-ring with respect to it being provided for waterproofing. There appears no disclosure of and it is not clear how the O-ring deforms to allow deformation of the locking piece. Further, it is noted that the ring washer (6) appears to separate the O-ring (7) from the locking piece (5). As such, it is not clear how deformation of the O-ring would enable deformation of the locking piece.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 20-25, 27 and 28 are rejected under 35 U.S.C. 102(a) as being anticipated by Mamoru et al (Japanese patent 11301420).

The patent to Mamoru discloses the invention as is claimed. Note figures 9 and 10 which show the O-ring (93) provided below the toothed locking member (82) and between the pivot shaft (80) and the pivot holder (90). The pivot shaft appears to have the varied diameter portions as is claimed. It appears that upon application of sufficient force to drive the shaft downwardly, the locking member (82) will be disengaged from the large diameter portion of the shaft thus reducing the frictional force of such member on the shaft. It appears, based on the relative sizes shown (fig.10), that as the shaft is driven downwardly it eventually will be entirely disengaged from the locking member (fig.10) as the small diameter portion passes through the locking member, thus reducing the frictional retaining force to zero. A zero retaining force would be less than half as much as the initial static friction.

With respect to claim 27, it thus appears the limitation of “designed to produce” will be met. Such does not impart any structure not shown or suggested by the Mamoru wiper apparatus since it appears to function as is claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 20-25, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moote et al (US patent 5,735,171) in view of Mamoru et al (Japanese patent 11301420).

The patent to Moote discloses the invention substantially as is claimed. Note figure 3 of Moote which shows a wiper pivot unit (70) including a pivot shaft (78) supported by bearing portions of a pivot holder (72). A locking member (94), formed as a toothed washer, restricts axial movement of the pivot shaft within the pivot holder. The pivot shaft includes a large diameter portion upon which the locking member engages when the shaft is installed and a small

Art Unit: 1744

diameter portion, either the conical shaped portion or the distal end of the shaft with respect to the pivot holder. It appears that upon application of sufficient force to drive the shaft downwardly, the locking member (94) will be disengaged from the large diameter portion of the shaft thus reducing the frictional force of such member on the shaft. It appears, based on the relative sizes shown, that as the shaft is driven downwardly it eventually will be entirely disengaged from the washer, thus reducing the frictional retaining force to zero.

The patent to Moote discloses all of the above recited subject matter with the exception of an O-ring to allow deformation of the locking ring.

The patent to Mamoru discloses using an O-ring (93, figs. 9-10) at one end of the pivot holder (90) between the pivot shaft (80) and the pivot holder. Such O-ring is provided beneath the lock washer (82) and bearing washer (83).

It would have been obvious to one of skill in the art to provide the assembly of Moote with an O-ring between the pivot shaft and the pivot holder beneath the lock washer (94) and bearing washer (92), as clearly suggested by Mamoru, to prevent debris from penetrating the pivot holder. Use of O-rings as seals is notoriously well known. It appears such an O-ring will inherently function as is claimed since it is would be provided in the same location as applicants.

Art Unit: 1744

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mamoru et al (Japanese patent 11301420) in view of Kobayashi et al (German patent 19851881).

The patent to Mamoru discloses all of the above recited subject matter with the exception of the pivot shaft having a threaded portion formed on a distal end thereof.

The patent to Kobayashi discloses the use of threads on the distal end of the pivot shaft (4) to couple the wiper arm (WA) to the shaft. Also, note that tapered knurled surface provided on the end of the pivot shaft.

It is noted that use of a threaded portion on the pivot shaft to secure the wiper arm thereto is notoriously well known.

It would have been obvious to one of skill in the art to provide the pivot shaft of Mamoru with threads on the end thereof, as clearly suggested by Kobayashi, to enable positive securement of the wiper arm with the shaft.

Response to Arguments

Applicant's arguments with respect to claims 1-5,7-9,11-17, 19 and 29 are persuasive. There does not appear to be a teaching of a thrust load being reduced to half of an initial thrust load required to cause movement of the pivot shaft.

As set forth above, claim 20 and claims that depend thereon do not appear patentable. As set forth above, there does not appear to be support for the language in claim 20 of the O-ring deforming. Clarification is requested. Additionally, the claims appear rejectable by art.

Allowable Subject Matter

Claims 1-5, 7-9, 11-17, 19 and 29 are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1744

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary K Graham whose telephone number is 571-272-1274. The examiner can normally be reached on Tuesday to Friday (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on 571-272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Gary K Graham', is positioned above the printed name.

Gary K Graham
Primary Examiner
Art Unit 1744

GKG
14 June 2004